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MS 1263 (1992) (English): METHOD OF SAMPLING OF MALAYSIAN COCOA POWDER AND MALAYSIAN COCOA BUTTER

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MALAYSIAN STANDARD

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METHOD OF SAMPLING OF MALAYSIAN COCOA POWDER AND MALAYSIAN COCOA BUTTER

SIRIM STANDARDS & INDUSTRIAL RESEARCH INSTITUTE OF MALAYSIA

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The following references relate to the work on this standard:

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Committee representation

The Food and Agricultural Industry Standards Committee under whose supervision this Malaysian Standard was prepared, comprises representatives from the following Government Ministries, trade, commerce and manufacturer association and scientific and professional bodies.

Department of Agriculture

Federal Agricultural Marketing Authority

Federation of Malaysian Consumers Associations

Federation of Malaysian Manufacturers

Malaysian Agricultural Research and Development Institute

Ministry of Agriculture

Malaysian Oil Palm Growers' Council

Rubber Research Institute of Malaysia

Universiti Pertanian Malaysia

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FOREWORD

This Malaysian Standard has been prepared by the Working Group on Cocoa and cocoa products under the authority of the Food and Agricultural Standards Committee.

This Malaysian Standard aims to provide sampling guidelines for cocoa powder and cocoa butter. In the preparation of this standard, the following were referred to:-

(a) Malaysian Standard MS 78 : 1973 'Methods of sampling fresh fruits'.

(b) Singapore Standard SS 95 : 1973 'Specification for butter'.

(c) International Standard ISO 5555 : 1983 'Animal and vegetable fats and oils - sampling'.

(d) Information given by various cocoa manufacturers.

(e) International Standard ISO 7002 : 1986 'Agricultural food products - Layout for a standard method of sampling from a lot.

METHOD OF SAMPLING OF MALAYSIAN COCOA POWDER AND MALAYSIAN COCOA BUTTER

1. SCOPE

1.1 This Malaysian Standard describes a method of sampling of Malaysian cocoa powder and cocoa butter entering into domestic and international trade, with a view to determine the quality and/or types of the products.

2. DEFINITIONS

For the purpose of this Malaysian Standard, the following definitions apply:

2.1 **Consignment:** The quantity dispatched at one time and covered by a particular contract or shipping document. It may be composed of one or more lots or parts of lots.

2.2 **Lot:** A stated quantity of the consignment, presumed to be of uniform characteristics, and which will allow the quality to be assessed.

2.3 **Primary sample:** A quantity taken from one unit in a lot.

2.4 **Bulk sample:** The quantity obtained by combining the various primary samples in amounts proportional to the quantities they represent.

NOTE. The bulk sample should be representative of the consignment.

2.5 **Contract sample:** The quantity obtained from the bulk sample after suitable homogenization and reduction in size, which is representative of the consignment and intended for laboratory examination.

2.6 **Reference (umpire) sample.** A sample prepared at the same time and having the same properties as the contract sample, and which is acceptable for the parties concerned and retained for use for laboratory analysis if a disagreement occurs.

3. GENERAL PRINCIPLES OF SAMPLING

3.1 It is important that all sampling operations be carried out or supervised by a responsible experienced person. Before sampling is begun its purpose shall be defined, i.e the characteristics to be tested shall be specified.

3.2 Sampling shall be carried out for routine examination of the product on the spot, and/or for tests of special characteristics. In both cases, samples shall be drawn at random.

3.3 Damaged packages of the lot shall be isolated and separate samples shall be drawn from the sound and from the damaged packages.

4. METHODS OF SAMPLING

4.1 Scale of sampling

4.1.1 All the units in a single consignment belonging to the same batch of manufacture shall be grouped together to constitute a lot. If a consignment is declared to consist of different batches of manufacture, the batches shall be marked separately and the group of units in each batch shall constitute separate lots.

4.1.1.1 ***Bulk packages.*** If the product is supplied in bulk package unit of 25 kg and above in weight, the number of units to be selected shall be in accordance with table 1 and sampling of the units shall be at random.

4.1.1.2 ***Retail packages.*** If the product is supplied in small retail units of below 25 kg in weight, the number of units to be selected shall be in accordance with table 2 and sampling of the units shall be at random.

Table 1. Sampling frequency for bulk packages

Total number of bulk units in the lot	Number of units to be selected
1	1
2 --- 9	2
10 --- 49	3
50 --- 99	4
100 --- 199	5
200 --- 999	5 plus one for each additional 200 units or fraction thereof over 200
1 000 and over	9 plus one for each additional 1 000 units or fraction thereof over 1 000

4.2 Sampling tools

4.2.1 Sampling tool shall be made of stainless steel, or of other suitable material of adequate strength which does not bring about a change in the sample which could affect the results of subsequent examinations. The sampling tool shall be of sufficiently robust constructions to prevent distortion in use. The tool, however, shall be sufficiently light to allow the sampler to move them rapidly through the product. The tool shall be capable of withstanding sterilization at 180°C. All surfaces shall be smooth and free from crevices. All corners shall be rounded, stainless steel spoon and knife will be suitable.

Table 2. Sampling frequency for retail packages

Total number of retail units in the lot	Number of units to be selected
1 --- 100	1
101 --- 1000	2
1001 --- 10,000	3
	4 plus one for each additional 2 500 units or fraction thereof over 2 500

4.3 Sampling containers

4.3.1 Sample containers and closures shall be of materials and construction which adequately protect the sample and which do not bring about a change in the sample which would affect the results of subsequent analysis or examinations. Materials which are appropriate include glass, some metals and some plastics. The containers should preferably be opaque. If transparent, filled containers shall be stored in a cool and dark place.

4.4 Sampling and sampling size

4.4.1 Using sterile sampling tool (knife and spoon) remove surface, layer of product. With another strerile spoon, take primary sample of 250g, if possible, from point near centre of every selected unit. This primary sample with other primary samples from the same consignment shall form the bulk sample. Place sample as quickly as possible into sample container, and close immediately, using aseptic precautions. In the case of cocoa butter, it is important that the product is not overheated. After complete sampling, the sample is mixed in the container.

5. PACKAGING AND HANDLING OF CONTRACT SAMPLE

5.1 Packaging

5.1.1 The contract samples which are not examined on the spot shall be suitably packed, to ensure that they will keep well.

5.1.2 The containers for the contract samples shall have a seal suitably affixed.

5.2 Marking

5.2.1 Samples which are to be despatched shall be marked (labelled) so that they cannot be interchanged. The marking shall be legible and permanent, and shall include the following information:

(a) Designation of the produce, possibly type where applicable;

(b) Contract number;

(c) Place of sampling;

(d) Date of sampling;

(e) Identification mark of the lot (optional);

(f) Name and signature of sampler (optional);

(g) Any other information.

5.3 Despatch and Storage

5.3.1 The contract sample shall be forwarded as soon as possible to its destination and the transport shall also be as rapid as possible.

5.3.2 Storage and transport of the contract sample shall be carried out in conditions such to avoid any change in the produce; it is therefore desirable that the examination shall follow sampling as quickly as possible.

6. SAMPLING REPORT

6.1 The sampling report, numbered and accompanied by a contract sample, shall include the following information, as appropriate:

(a) Designation of the produce, possibly type, where applicable;

(b) Consignee;

(c) Place and date of despatch;

(d) Name and address of the consignor;

(e) Place, duration and conditions of storage of the lot and indication of the means of transport (description, vehicle registration number);

(f) Day and time when sampling was requested;

(g) Day and time when the sample was drawn;

(h) Atmospheric conditions during sampling (temperature etc.);

(j) Size of the consignment, or number of packages;

(k) Mark enabling the consignment to be identified with the sample (kind of package, text of the label, etc.);

(l) Purpose of sampling, and indication of the time lapse between sampling and examination for quality under normal conditions;

(m) Description of the condition of the means of transport or of the store (cleanliness, foreign odour, and, for the means of transport, mechanical conditions, weatherproofness etc.);

(n) Apparent uniformity of the consignment proportion of damp containers or packaging material or otherwise damaged goods;

(p) Cleanliness of the consignment;

(q) Type and quality of the package and disposition of the produce in the package;

(r) Temperature at the centre of the consignment or temperature of the means of transport or of the store;

(s) Tare of the package in the consignment;

(t) Full name (s) of interested parties present during the sampling;

(u) Full name (s) of the sampler (s);

The report should also state whether a technique different from that specified in the Malaysian Standard has been used.

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